



# 2011 Minerals Yearbook

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## NEW CALEDONIA

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# THE MINERAL INDUSTRY OF NEW CALEDONIA

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In 2011, about 8% of the world's nickel production came from New Caledonia, as did about 2% of the world's cobalt production. New Caledonia was the world's fifth ranked producer of mined nickel, and its reserves were estimated to be about 12 million metric tons (Mt). The country's cobalt resources were estimated to account for about 4.5% of the world total (Kuck, 2012; Shedd, 2012).

## Production

In 2011, New Caledonia produced about 100,400 metric tons (t) of nickel from 5.6 Mt of saprolite ore and about 30,300 t of nickel from 3.2 Mt of laterite ore compared with 104,800 t of nickel from 6 Mt of saprolite ore and about 25,000 t of nickel from 2.7 Mt of laterite ore in 2010. In 2011, the amount of nickel derived from ferronickel production increased by about 0.5% to about 40,000 t. Data on mineral production are in table 1 (Direction de l'Industrie, des Mines et de l'Energie, 2012).

## Structure of the Mineral Industry

In 2011, the Goro nickel-cobalt operation was jointly owned by Vale Nouvelle-Calédonie S.A.S. (75%) and Japanese companies Sumitomo Metal Mining Co. Ltd. (11%) and Mitsui Co. Ltd. (10%). The Koniambo nickel project was a joint venture between Société Minière du Sud Pacifique (SMSP) (51%) and Xstrata Nickel (operator, 49%). SMSP continued to be a major nickel ore producer in New Caledonia at its SMSP Laterite Operation (also known as the Sud-Pacifique Mine), which is located northwest of Noumea; the Sud-Pacifique Mine was a joint venture between SMSP (51%) and Pohang Iron and Steel Co. Ltd. (POSCO) of the Republic of Korea (49%). Table 2 is a list of major mineral industry facilities.

## Mineral Trade

In 2011, according to the United Nations Commodity Trade Statistics database, New Caledonia exported about 4.4 Mt of nickel ores and concentrates valued at about \$302 million; about 45,100 t of nickel oxides and hydroxides valued at about \$127 million; approximately 165,000 t of ferronickel in granular or powder form valued at about \$847 million; and about 19,700 t of nickel matte, nickel oxide sinter, and other intermediate products of nickel metallurgy valued at \$271 million (United Nations Statistics Division, 2012).

## Commodity Review

### Metals

**Nickel and Cobalt.**—Throughout most of 2011, Vale Nouvelle-Calédonie continued to ramp up production at its

Goro nickel-cobalt project, which is located 58 kilometers east of Noumea in South Province, after commissioning in August 2010. Startup at the mine had been delayed several years, and development costs had almost doubled to about \$4 billion. The company reportedly began increasing output in the fourth quarter of 2011 and produced about 4,000 t of nickel in the first 3 months of 2012. By May 2012, Vale Nouvelle-Calédonie had suspended sales and purchases after declaring force majeure following an incident at the mine's sulfuric acid plant. At full production, the mine was expected to be able to produce up to 60,000 metric tons per year (t/yr) of nickel and 4,500 t/yr of cobalt using high-pressure acid leaching to extract the large volumes of low-grade nickel. Proven and probable reserves at Goro included 126.4 Mt of ore grading 1.44% Ni and 0.11% Co.

As of December 31, 2011, measured and indicated resources at the Koniambo nickel project included 75.6 Mt grading 2.47% nickel. The project was expected to process 3 million metric tons per year of limonite and saprolite ore and produce 60,000 t/yr of nickel at full production, which would be reached sometime in 2014 (Thomson Reuters, 2012).

## Outlook

New Caledonia is expected to continue to be a globally significant cobalt and nickel producing country, and production is expected to increase as both the Goro and the Koniambo projects commence operations and production is ramped up.

## References Cited

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- Thomson Reuters, 2012, Update 1—Vale invokes force majeure at nickel project: Thomson Reuters, May 10. (Accessed May 17, 2010, at <http://www.reuters.com/article/2012/05/10/vale-newcaledonia-forcemajeure-idUSL1E8GALBI20120510>.)
- United Nations Statistics Division, 2012, United Nations commodity trade statistics database (UN Comtrade): United Nations Statistics Division database. (Accessed May 18, 2012, via <http://comtrade.un.org/db>.)

TABLE 1  
NEW CALEDONIA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

Commodity <sup>2</sup>	2007	2008	2009	2010	2011
Cement	121,818	137,108	138,114	138,000 <sup>r, c</sup>	138,000 <sup>c</sup>
Nickel:					
Ore:					
Gross weight thousand metric tons	7,575	6,172	5,689	8,709	8,835
Co content	1,620	869	1,000	1,700	1,700 <sup>c</sup>
Ni content	125,211	102,700	92,500	129,800	130,700
Ferronickel:					
Gross weight	145,000	124,900	114,897	115,000 <sup>c</sup>	115,000 <sup>c</sup>
Ni content	44,954	37,467	38,230	39,802	40,015
Nickel matte:					
Gross weight	19,500	18,000	19,000	19,000 <sup>c</sup>	19,000 <sup>c</sup>
Ni content	14,842	13,564	13,902	13,917	13,780

<sup>c</sup>Estimated; estimated data are rounded to no more than three significant digits. <sup>r</sup>Revised.

<sup>1</sup>Table includes data available through May 22, 2012.

<sup>2</sup>In addition to the commodities listed, crude (unspecified) and crushed stone, construction sand, and silica sand for metallurgical use are produced, but available information is inadequate to make reliable estimates of output.

TABLE 2  
NEW CALEDONIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Metric tons unless otherwise specified)

Commodity	thousand metric tons	Major operating companies and major equity owners	Location of main facilities	Annual capacity <sup>c</sup>
Cement		Société des Ciments de Numbo	Noumea	150
Cobalt, in ore and concentrate, Co content		Société Le Nickel (SLN) [Eramet Group, 56%; Société Territoriale Calédonienne de Participation Industrielle (STCPI), 34%; Nisshin Steel Co., 10%]	Kouaoua, Nepoui-Kopeto, Poum, Thio, and Tiebaghi mining centers	2,000
Do.		Société Minière du Sud Pacifique (majority owned by the government of Northern Province)	Boakaine, Ouaco, Poum, and Poya mining centers	1,000
Do.		Groupe Ballande Figesbal, 75%, and Sumitomo Metal Mining Co. Ltd., 25.5%	Figesbal, Noumea	NA
Do.		Vale Nouvelle-Calédonie S.A.S., 75%; Sumitomo Metal Mining Co. Ltd., 11%; Mitsui Co. Ltd., 10%	Goro, 58 kilometers east of Noumea in South Province	4,500
Nickel:				
In ore and concentrate, Ni content		Société Le Nickel (SLN)	Kouaoua, Nepoui-Kopeto, Poum Thio, and Tiebaghi mining centers	61,500
Do.	thousand metric tons	Société Minière du Sud Pacifique, 51%, and Pohang Iron and Steel Co. Ltd. (POSCO), 49%	SMSP Laterite Operation in South Province	2,100
Do.		Société des Mines de la Tontouta, 100%	Moneo and Nakety mining centers	16,000
Do.		Other small nickel mining companies, which includes Société Minière George Montagnat SA (SMGM)	Moneo and Nakety-Bogota, and Tontouta mining centers	7,300
Do.		Sumitomo Metal Mining Co. Ltd., 25.5%	Figesbal, Noumea	NA
Do.		Vale Nouvelle-Calédonie S.A.S., 75%; Sumitomo Metal Mining Co. Ltd., 11%; Mitsui Co. Ltd., 10%	Goro, 58 kilometers east of Noumea in South Province	60,000
In ferronickel, Ni content		Société Le Nickel (SLN) [Eramet Group, 56%; Société Territoriale Calédonienne de Participation Industrielle (STCPI), 34%; Nisshin Steel Co., 10%]	Doniambo, Noumea	60,000
In nickel matte, Ni content		do.	do.	15,000

<sup>c</sup>Estimated. Do., do. Ditto. NA Not available.